

## PATENT ABSTRACTS OF JAPAN

Ref. 1

(11)Publication number : 09-188509

(43)Date of publication of application : 22.07.1997

(51)Int.Cl.

C01B 31/02

D01F 9/127

(21)Application number : 08-003636

(71)Applicant : NEC CORP

(22)Date of filing : 12.01.1996

(72)Inventor : YOSHIKAWA HIDEKI

## (54) PRODUCTION OF MONOLAYER CARBON NANOTUBE

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a method for producing monolayer carbon nanotube, enabling its continuous production over a long time.

**SOLUTION:** The objective monolayer carbon nanotube can be synthesized stably over a long time by using electrodeless high-frequency plasma without, in principle, any variation in plasma situation due to electrode exhaustion as observed in arc discharge process. Besides, formation of amorphous carbon and/or graphite as impurities can be suppressed without decreasing the yield of the aimed carbon nanotube by feeding the peripheral area of the high-frequency plasma with hydrogen gas to etch carbon and/or argon gas to rapidly drop gas temperature independently of raw material feed.